

65
cont
adhering the cross support to the first surface of the plate.

66
3. (once amended) A method in accordance with Claim 1 wherein said shelf frame further comprises a bracket, said method further comprising the step of attaching the bracket to a side support.

67
5. (once amended) A method in accordance with Claim 4 further comprising the step of connecting the side support to a cross support.

6. (once amended) A shelf for a refrigerator, said shelf comprising:
a substantially flat plate including first and second surfaces and an outer periphery;
at least one cross support extending below said plate first surface;
a frame adhered to said outer periphery of said plate second surface and forming a seal;
and
at least one side support connected to said cross support and configured for attachment to a refrigerator, said frame adhered to one of said cross support and said side support.

Remarks

The Office Action mailed November 13, 2002 has been carefully reviewed and the foregoing amendment has been made in consequence thereof.

Claims 1-20 are now pending in this application. Claims 1-20 stand rejected. Claim 2 has been canceled.

The objection to the specification is respectfully traversed. The specification has been amended to correct the noted informalities in the Office Action. Accordingly, Applicants request that the objection to the specification be withdrawn.

The objection to the drawings is respectfully traversed.

With respect to the objection that the drawings do not show the frame connected to the cross support, it is respectfully submitted that the connection between the frame and the cross support is evident from Figure 5 and the accompanying description on page 4, lines 25-29 to page 5, lines 1-3. With respect to the objection that the drawings do not show the bracket connected to the cross support, it is respectfully submitted that the connection between the bracket and the cross support is evident from Figure 8 and the accompanying description on page 7, lines 5-14. It is therefore submitted that these features are fully enabled by the specification and drawings as filed, and that generation of additional views to illustrate readily understood features would place an unnecessary burden and expense on the Applicants to procure the patent protection that is believed to be entitled.

The herewith submitted Request for Approval of Drawing Change includes a substitute drawing sheet for Figure 5 to correct reference character “58” in Figure 5 used to designate both a barrier portion and a sealing portion as filed. Page 5, line 5 has also been amended for consistency with the proposed drawing sheet for Figure 5.

The Request for Approval of Drawing Change further includes a substitute drawing sheet for Figures 5 and 8 to include reference numerals “60”, and “108” as described in the specification. Reference numeral “120” is shown in Figure 9 as filed and does not require correction.

The Request for Approval of Drawing Change also includes a substitute drawing sheet for Figures 8, 9, and 11 to correct reference characters “96”, “124”, and “120” as indicated by the Office Action.

Applicants respectfully request approval of the indicated drawing changes. Upon approval of the drawing change, Applicants will submit substitute drawings incorporating the above-noted changes.

For the reasons set forth above, Applicants request that the objections to the drawings be withdrawn.

The objection to Claim 6 due to an informality is respectfully traversed. Claim 6 has been amended in accordance with the suggestion in the Office Action. Applicants therefore request that the objection to Claim 6 be withdrawn.

The rejection of Claims 6-13 under 35 U.S.C. § 112 is respectfully traversed. According to the Office Action, a direct connection between the frame and the cross supports is not disclosed. As disclosed on page 4, lines 25-29 and page 5, lines 1-17 of the present application, the plate 12 is the direct connection between the frame 18 and the cross support 14. As disclosed, a sealing adhesive 60 adheres frame 18 to the plate second surface 54 and adheres cross supports 14 to the plate first surface 50.

The rejection of Claims 3 and 5 under 35 U.S.C. § 112 is respectfully traversed. Claims 3 and 5 have been amended to overcome the issues noted in the Office Action. Applicants therefore respectfully request that the Section 112 rejections of Claims 3 and 5 be withdrawn.

The rejection of Claims 1, 6, 7 and 10-18 under 35 U.S.C. § 102(b) as being anticipated by Bussan et al., U.S. Patent No. 4,934,541 (hereinafter referred to as "Bussan") is respectfully traversed.

Bussan describes a refrigerator shelf 12 for a household refrigerator. A picture frame 18 is slidably received in respective right and left tracks 26 and 28 to mount a refrigerator shelf 12 in a refrigerator compartment 30. As shown in Figure 3 of Bussan, the picture frame 18 includes an upper frame 44 and a lower frame 46 that cooperate together to sandwich a peripheral edge 48 of the glass plate 20 therebetween. The lower frame 46 includes a generally horizontally extending frame member 50 that extends beneath the periphery 48 of the glass plate. A flange 54 extends upwardly from an outer surface of the frame member 50 a distance approximately equal to the thickness of the glass plate 20. A smaller flange 56 projects upwardly from the flange 54

to provide a weld bead for ultrasonically welding the upper frame 44 and the lower frame 46 together. The upper frame 44 of the plastic frame 18 includes a generally horizontally extending frame member 58 that extends above the periphery of the plate 20. A flange 60 extends downwardly from an inner surface of the frame member 58 so as to abut the upper surface 62 of the glass plate 20 about its entire periphery when the upper and lower frames 44 and 46 are secured together. The frame member 58 further includes a flange 64 extending downwardly from an outer surface thereof.

Claim 1 recites a method for assembling a shelf for a refrigerator. The shelf includes a plate, a frame and at least one cross support. The plate having first and second surfaces and an outer periphery. The method includes “applying an adhesive to the frame; adhering the frame to the second surface of the plate along the outer periphery; applying an adhesive to at least one of the cross support and the first surface of the plate; and adhering the cross support to the first surface of the plate”.

Bussan neither describes nor suggests applying an adhesive to the frame, adhering the frame to the second surface of the plate along the outer periphery, applying an adhesive to at least one of the cross support and the first surface of the plate, and adhering the cross support to the first surface of the plate. Moreover, Bussan neither describes nor suggests adhering the cross support to the first surface of the plate. Bussan neither describes nor suggests a cross support and a side support. Rather, the picture frame includes an upper frame and a lower frame that cooperate together to sandwich a peripheral edge 48 of the glass plate 20 therebetween. Bussan col. 2, lines 52-55. The sides 22 and 24 described by Bussan are the sides of the picture frame 18 which are slidably received in respective right and left tracks 26 and 28 to mount the refrigerator shelf 12 in the refrigerator compartment 30.

For the reasons set forth above, Claim 1 is submitted to be patentable over Bussan.

Claim 6 recites a shelf for a refrigerator. The shelf includes “a substantially flat plate including first and second surfaces and an outer periphery; at least one cross support extending

below said plate first surface, a frame adhered to said outer periphery of said plate second surface and forming a seal, and at least one side support connected to said cross support and configured for attachment to a refrigerator, said frame adhered to one of said cross support and said side support”.

Bussan neither describes nor suggests a shelf including a substantially flat plate including first and second surfaces and an outer periphery, at least one cross support extending below the plate first surface, a frame adhered to the outer periphery of the plate second surface and forming a seal, and at least one side support connected to the cross support and configured for attachment to a refrigerator, the frame adhered to one of the cross support and the side support. Moreover, Bussan neither describes nor suggests a cross support and a side support. Rather, the picture frame 18 includes an upper frame 44 and a lower frame 46 that cooperate together to sandwich a peripheral edge 48 of the glass plate 20 therebetween. Moreover, Bussan neither describes nor suggests the frame adhered to one of the cross support and the side support.

For the reasons set forth above, Claim 6 is submitted to be patentable over Bussan.

Claims 7 and 10-13 depend, directly or indirectly, from independent Claim 6. When the recitations of Claims 7 and 10-13 are considered in combination with the recitations of Claim 6, Applicants submit that dependent Claims 7 and 10-13 are likewise patentable over Bussan.

Claim 14 recites a shelf for a refrigerator. The shelf including “a plate including first and second surfaces and an outer periphery, first and second side supports supporting said plate first surface, at least one cross support connecting said first and second side supports, and a frame adhered to said second surface of said plate, said frame extending along said plate outer periphery to form a spill containment area”.

Bussan neither describes nor suggests a shelf including a plate including first and second surfaces and an outer periphery, first and second side supports supporting the plate first surface, at least one cross support connecting the first and second side supports, and a frame adhered to

the second surface of the plate, the frame extending along the plate outer periphery to form a spill containment area. Moreover, Bussan neither describes nor suggests first and second side supports supporting the plate first surface and at least one cross support connecting the first and second side supports. As stated above, the picture frame 18 includes an upper frame 44 and a lower frame 46 that cooperate together to sandwich a peripheral edge 48 of the glass plate 20 therebetween. Nowhere does Bussan describe or suggest side supports supporting a plate on the first surface and a cross support connecting the side supports.

Claim 14 is therefore submitted to be patentable over Bussan.

Claims 15-18 depend, directly or indirectly, from independent Claim 14. When the recitations of Claims 15-18 are considered in combination with the recitations of Claim 14, Applicants submit that dependent Claims 15-18 likewise are patentable over Bussan.

For the reasons set forth above, Applicants respectfully request that the Section 102 rejection of Claims 1, 6, 7, and 10-18 be withdrawn.

The rejection of Claims 2-5, 8, 9, 19 and 20 under 35 U.S.C. § 103 as being unpatentable over Bussan in view of Caruso et al., U.S. Patent No. 5,641,217, (hereinafter referred to as "Caruso") is respectfully traversed.

Bussan is described above. Caruso describes a shelf 12 and a crisper drawer 14 slidably mounted on a pair of rails 16 which are removably locked into the underside of the shelf 12. Each of the rails includes a flange 18 on the bottom and a vertical wall 20 formed on the edge of the flange 18. A pair of risers 26 are formed on each end of the flange 18 and wall 20 on rails 16 to raise the front and back of the crisper into engagement with seals 28 provided on the bottom of the front and back of the shelf. The shelves 12 are supported in the refrigerator by means of the brackets 35 which matingly engage slots 66 in the steel uprights 67 in the back of the refrigerator. The rails 16 are mounted on the bottom of the shelf by inserting one of the flanges 58 angularly into the slot 36 at the front of the shelf. The flange 58 at the other end of the rail is

angularly aligned with the double slot 38 in the back of the frame. The rail is pivoted in slot 36 and at the same time the flange 58 is pivoted radially into one side of the double slot 38 until the recess 60 is aligned with the rib 40 and the flange 54 is seated against the molding 34.

Applicants respectfully submit that the Section 103 rejection of the presently pending claims is not a proper rejection. Obviousness cannot be established by merely suggesting that it would have been an obvious to one of ordinary skill in the art to modify Bussan according to the teachings of Caruso. More specifically, as is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. Neither Bussan nor Caruso describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Bussan with Caruso because there is no motivation to combine the references suggested in the art. Rather, the Examiner has not pointed to any prior art that teaches or suggests to combine the disclosures, other than Applicants' own teaching. Only the conclusory statement that "[i]t would have been obvious to adhere the cross and side supports of Bussan et al. to the first surface of said plate, as taught by Caruso et al., in order to increase the load bearing capacity of said shelf" suggests combining the disclosures. Applicants respectfully submit however, that the prior art teaches away from the present invention. More specifically, neither Bussan nor Caruso describe or suggest applying an adhesive to at least one of the cross support and the first surface of the plate and adhering the cross support to the first surface of the plate.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the

present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown. Specifically, the Examiner has not pointed to any prior art that teaches or suggests a reasonable expectation of success or motivation in combining the disclosures, other than Applicants' own teaching.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejection is based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Bussan is cited for including a plate having a first and second surface slidably received, and Caruso is cited for a cross support and a side support being adhered to the first surface of the plate. Since there is no teaching, suggestion, or motivation in the cited art for the claimed combination, the Section 103 rejection appears to be clearly based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejection of Claims 2-5, 8-9, and 19-20 be withdrawn.

Further, and to the extent understood, neither Bussan nor Caruso, considered alone or in combination, describe or suggest the claimed combination, and as such, the presently pending claims are patentably distinguishable from the cited combination. Specifically, Claims 3-5 depend from Claim 1 which recites a method for assembling a shelf for a refrigerator. The shelf includes a plate, a frame and at least one cross support. The plate having first and second surfaces and an outer periphery. The method includes "applying an adhesive to the frame; adhering the frame to the second surface of the plate along the outer periphery; applying an

adhesive to at least one of the cross support and the first surface of the plate; and adhering the cross support to the first surface of the plate”.

Neither Bussan nor Caruso, alone or in combination, describe or suggest adhering the cross support to the first surface of the plate and adhering the cross support to the first surface of the plate. Rather, Bussan describes sides 22 and 24 which are slidably received in respective right and left tracks 26 and 28 to mount the refrigerator shelf 12 in the refrigerator compartment 30. Caruso describes that rails 16 are mounted on the bottom of the shelf by inserting one of the flanges 58 angularly into the slot 36 at the front of the shelf. Caruso col. 3, lines 26-28. Nowhere does Caruso describe or suggest adhering the side support to the first surface of the plate. Caruso describes a slot 62 for supporting the ends of the rubber seal 28 which sticks to the flat underside of the shelf. According to Caruso, rubber seal 28 is for sealing the drawer to the shelf. Caruso neither describes nor suggests that the seal 28 supports the shelf. Rather, the brackets 35 support the shelf by matingly engaging the slots 66 in the steel uprights 67 in the back of the refrigerator.

Therefore, Bussan in view of Caruso does not describe nor suggest a method for assembling a shelf for a refrigerator, the shelf includes a plate, a frame and at least one cross support, the plate having first and second surfaces and an outer periphery, the method including applying an adhesive to the frame, adhering the frame to the second surface of the plate along the outer periphery, applying an adhesive to at least one of the cross support and the first surface of the plate and adhering the cross support to the first surface of the plate.

Claim 1 is therefore submitted to be patentable over Bussan in view of Caruso. When the recitations of Claims 3-5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 3-5 likewise are patentable over Bussan in view of Caruso. Claim 2 has been canceled.

Claims 8 and 9 depend directly or indirectly from Claim 6, which recites a shelf including “a substantially flat plate including first and second surfaces and an outer periphery; at least one

cross support extending below said plate first surface; a frame adhered to said outer periphery of said plate second surface and forming a seal; and at least one side support connected to said cross support and configured for attachment to a refrigerator, said frame adhered to one of said cross support and said side support”.

Neither Bussan nor Caruso, alone or in combination, describe or suggest at least one cross support extending below the plate first surface and at least one side support connected to the cross support and configured for attachment to a refrigerator. Bussan neither describes nor suggests a cross support nor a side support, and Caruso neither describes nor suggests a cross support. Rather, Caruso describes a rubber seal 28 for sealing the drawer 14 to the shelf 12. Caruso neither describes nor suggests a cross support configured for attachment to a refrigerator.

Claim 6 is therefore submitted to be patentable over Bussan in view of Caruso.

Claims 8 and 9 depend, directly or indirectly, from independent Claim 6. When the recitations of Claims 8 and 9 are considered in combination with the recitations of Claim 6, Applicants submit that dependent Claims 8 and 9 likewise are patentable over Bussan in view of Caruso.

Claims 19 and 20 depend directly or indirectly from Claim 14, which recites a shelf including “a plate including first and second surfaces and an outer periphery; first and second side supports supporting said plate first surface; at least one cross support connecting said first and second side supports and a frame adhered to said second surface of said plate, said frame extending along said plate outer periphery to form a spill containment area”.

Neither Bussan nor Caruso, alone or in combination, describe or suggest first and second side supports supporting the plate first surface and at least one cross support connected the first and second side supports. Rather, the brackets 35 support the shelf 12. Caruso neither describes nor suggests a cross support. Rather, Caruso describes a rubber seal 28 on the bottom of the front and back of the shelf for sealing the drawer to the shelf.

Claim 14 is therefore submitted to be patentable over Bussan in view of Caruso.

Claims 19 and 20 depend, directly or indirectly, from independent Claim 14. When the recitations of Claims 19 and 20 are considered in combination with the recitations of Claim 14, Applicants submit that dependent Claims 19 and 20 likewise are patentable over Bussan in view of Caruso.

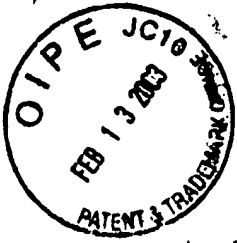
For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 2-5, 8, 9, 19 and 20 be withdrawn.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



Thomas M. Fisher
Registration No. 47,564
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070



9D-HR-19109
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Masker et al. :
Serial No.: 09/480,345 : Art Unit: 3634
Filed: January 10, 2000 : Examiner: Harris, Erica
For: SPILLPROOF REFRIGERATOR :
SHELF :

SUBMISSION OF MARKED UP CLAIMS AND PARAGRAPHS

Hon. Commissioner for Patents
Washington, D.C. 20231

In furtherance of the response to the Office Action dated November 13, 2002 submitted herewith, Applicants hereby submit marked up versions of the amendments therein:

IN THE SPECIFICATION

Please replace the paragraph on page 3, line 9 with the following paragraph:

Figure 12 is a perspective view of the shelf support system shown [In] in Figure 9.

Please replace the paragraph on page 5, line 4 with the following paragraph:

Underside channel 26 extends underneath barrier portion 58 along the entire plate outer periphery 56. A sealing adhesive [58] 60 occupies underside channel 26 and frame 18 is adhered to plate second surface 54. Overflow channels 62 on either side of underside channel 26 contain overflow of sealing adhesive 60, or, alternatively are also filled with sealing adhesive 60 to form a triple seal frame. Sealing adhesive 60 is one of several suitable adhesives known in the art, including, but not limited to, RTV (room temperature vulcanization) silicones with adequate

adhesion and non-corrosive properties. Thus, a seal extends around containment area 20 (Figure 1) and contains spilled liquid within barrier portion 58.

Please replace the paragraph on page 5, line 27 with the following paragraph:

First end 66 and second end 68 of each cross support [16] 14 are connected substantially perpendicularly to side supports 16 and support plate 12 as beam elements between side supports 16. Cross supports 14 are positioned substantially level within the refrigerator so that food and beverage containers may be stored on plate 12 without tipping and spilling. In an alternative embodiment, one, three or more cross supports 14 support plate 12.

Please replace the paragraph on page 7, line 19 with the following paragraph:

A method for assembling shelf 80 includes filling underside channel 104 of frame with sealing adhesive 102 and adhering frame 88 to plate second surface 94 along outer periphery 100. Adhesive may be applied to cross supports 84 and/or plate first surface 106, and cross supports 84 are then adhered to plate first surface 106. Each cross support 84 is then attached to side supports 86 so that plate [12] 82 is substantially level. Bracket portion 92 is then attached to side supports 86.

IN THE CLAIMS

Please cancel Claim 2 without prejudice.

1. (once amended) A method for assembling a shelf for a refrigerator, the shelf including a plate, [and] a frame, and at least one cross support, the plate having first and second surfaces and an outer periphery, said method comprising the steps of:

applying an adhesive to the frame; [and]

adhering the frame to the second surface of the plate along the outer periphery[.];

applying an adhesive to at least one of the cross support and the first surface of the plate;
and

adhering the cross support to the first surface of the plate.

3. (once amended) A method in accordance with Claim [2] 1 wherein said shelf frame further comprises a bracket, said method further comprising the step of attaching the bracket to [the] a side support.

5. (once amended) A method in accordance with Claim 4 further comprising the step of connecting the side support to [the] a cross support.

6. (once amended) A shelf for a refrigerator, said shelf comprising:
a substantially flat plate including first and second surfaces and an outer periphery;
at least one cross support extending below said plate first surface;
a frame adhered to said outer periphery of said plate [first] second surface and forming a seal; and

at least one side support connected to said cross support and configured for attachment to a refrigerator, said frame adhered to one of said cross support and said side support.

Respectfully Submitted,



Thomas M. Fisher
Registration No. 47,564
ARMSTRONG TEASDALE LLP
One Metropolitan Square, Suite 2600
St. Louis, Missouri 63102-2740
(314) 621-5070